

REMARKS

Claims 1-24 and 34-36 were examined and rejected. Applicant amends claims 1, 8, 18, 20, 21 and 35-36; adds no claims; and cancels no claims. Applicant asserts that no new matter is added herein as amendment to "one of conductive pads and trace pads" in claim 1 is supported by description at paragraph 19 lines 3 and 7; and paragraph 23 line 4 of the Application as originally filed (such as to allow for vacuum forced attachment to a device, such as pick-and-place device as described at paragraph 9, 15, and 28-29, and 31 of the Application as originally filed). In addition, no new matter is added herein as amendment to "the apparatus having size that is smaller or equal in depth as compared to a depth of an inner dimension of the cavity" in claims 8 and 20 is supported by description at paragraph 9 line 11 of the Application as originally filed ("apparatus 110 may be removably coupled to socket 130 by closing retainer 170"); and paragraph 14 lines 1 through 4 of the Application as originally filed ("apparatus 110 ... may have a size that is ... smaller, or equal in ... depth as compared to the ... inner dimension of socket 130, or a cavity thereof"). Applicant respectfully requests reconsideration of claims 1-24 and 34-36 as amended in view of at least the following remarks.

I. Claims Rejected Under 35 USC § 112

The Patent Office rejects claims 1-7 under 35 USC § 112, first paragraph as failing to comply with the written description requirement because it appears that the original specification does not have support for "a generally planar surface and one of conductive pads and trace pads surrounding the generally planar surface such that the generally planer surface is accessible to a pick-and-place adapted to be attached to via a vacuum force attachment" as claimed in claim 1.

Applicants respectfully disagree since amended claim 1 is supported by the specification as originally filed as described above (e.g., for example, without limitation thereto, see at least paragraphs 9, 15, 19, 23, 28-29, and 31; and figures 1-4 of the

Application as originally filed). Hence, Applicants respectfully request the Patent Office withdraw the rejection above.

II. Drawings Objected To

Next, the Patent Office objects to the drawings under 37 CFR Section 1.83(a) as not showing every feature of “a generally planar surface and one of conductive pads and trace pads surrounding the generally planar surface such that the generally planer surface is accessible to a pick-and-place adapted to be attached to via a vacuum force attachment” as claimed in claim 1.

Applicants respectfully disagree since amended claim 1 is shown by the drawings as originally filed as described above. Specifically, for example, without limitation thereto, the drawings show “a generally planar surface” (e.g., planar surface 154 of Figs. 1 and 3 of the Application, as filed) “and one of conductive pads and trace pads” (e.g., energy conduits 122-124 et al. of Figs. 1 and 3 may be conductive pads or trace pads as noted at paragraph 19 lines 3 and 7; and paragraph 23 line 4 of the Application, as filed) “surrounding the generally planar surface” (e.g., energy conduits 122-124 et al. of Figs. 1 and 3 surrounding planar surface 154 of Figs. 1 and 3 of the Application, as filed) “such that the generally planer surface is accessible to a pick-and-place adapted to be attached to via a vacuum force attachment” (e.g., planar surface 154 of Figs. 1 and 3 is accessible within surrounding energy conduits 122-124 et al. of Figs. 1 and 3 to a pick-and-place adapted to be attached to via a vacuum force attachment as described at blocks 310, 340, and 360 of Fig. 4 of the Application as originally filed). Hence, Applicants respectfully request the Patent Office withdraw the rejection above.

III. Claims Objected To

The Patent Office objects to claims 8-10, 12, 16, 18, 20-21 and 34-36 because of informalities. Specifically, Patent Office objects:

For claim 8 “it is unclear which part of apparatus in which ‘a thickness’ belongs to.” Applicants point out that for example, without limitation thereto, in amended

claim 8 “the apparatus having size that is smaller or equal in depth as compared to a depth of an inner dimension of the cavity” may refer to the size of energy conduit 122 of apparatus 110 having a depth (a depth including a depth of energy conduit device 142, thickness T, and stimuli transfer zone 112, as shown in the vertical direction of Fig. 2 of Applicants’ specification) that is smaller or equal in depth (in the vertical direction of Fig. 2 of Applicants’ specification) as compared to a depth of an inner dimension of socket cavity 136 of socket 130 (a depth of socket 130 above socket contact 132 and below the portion of retainer 170 contacting socket 130, as shown in the vertical direction of Fig. 2 of Applicants’ specification).

Applicants point out that the example above is not limiting, as various other depths that satisfy the feature “apparatus having size that is smaller or equal in depth as compared to a depth of an inner dimension of the cavity” may also be appropriate, such as those described and/or shown in various examples in the specification, claims and figures of the Application, as originally filed (see paragraphs 9, 10, 13-14, 30-31, and 34-35; and shown in figures 1-4), without limitation thereto. Specifically, in another example, without limitation thereto, in amended claims 8 and 20 “the apparatus having size that is smaller or equal in depth as compared to a depth of an inner dimension of the cavity” may refer to the maximum depth of apparatus 110 (including energy conduits 122-124, energy conduit devices 142-144, thickness T between first side 148 and second side 118, and stimuli transfer zones 112-114, as shown in the vertical direction of Fig. 2 of Applicants’ specification) that does not extend above the upper surface of the walls of socket 130, and thus does not prohibit retainer 170 from being locked over apparatus 110 within socket 130 by lock 139 as shown in Figures 1 and 2. Hence, for at least the reasons explained above, Applicant respectfully requests the Patent Office withdraw the objection above.

Also, for claim 8 because “it is unclear how the second side is related and associated with the test device portion.” Applicants point out that for example, without limitation thereto, in amended claim 8 “a second side” may be shown by the bottom or second side 118 of apparatus 110, which may include socket contacts 112-114 within test

device portion 152 of apparatus 110 as shown in Figs. 2-3 of Applicants' specification. Hence, for example, without limitation thereto, as shown in Figs. 2-3 of Applicants' specification a "test device portion" may be a three dimensional portion or region shown by feature 152 of apparatus 110 within lid portion 150, while "second side" may be bottom or side 118 of apparatus 110 having a three dimensional surface including the bumps of zones 112-114 within the three dimensional portion or region shown by feature 152 of apparatus 110. For at least the reasons explained above, Applicant respectfully requests the Patent Office withdraw the objection above. Hence, for at least the reasons explained above, Applicant respectfully requests the Patent Office withdraw the objection above.

For claims 9-10 "it is unclear what 'one mechanical attachment point' comprises of." Applicants point out that upon reading the Application, a practitioner in the arts would find clear "the first side includes ... at least one mechanical attachment point to be mechanically grappled to by a device to pick up and place the apparatus on the socket" of claims 9-10. For example, without limitation thereto, paragraph 9 describes "It is also contemplated that at surface 154 or another location of first side 148 of apparatus 110, may include at least one mechanical attachment point to be mechanically grappled by a device, such as a PnP device, to place apparatus 110 in socket 130 or to remove apparatus 110 from socket 130, or to place apparatus 110 at another location or on another surface, or in another socket as desired." Hence, for at least the reasons explained above, Applicant respectfully requests the Patent Office withdraw the objection above.

For claim 12 "it is unclear what 'a plurality of contacts' comprises of." Applicants point out that upon actually reading line 10 of paragraph 17 of the Application, a practitioner in the arts would find clear that the energy conduits may include electrical contacts. Hence, for at least the reasons explained above, Applicant respectfully requests the Patent Office withdraw the objection above.

For claim 16 “‘conduits disposed within the first side’ is improperly claimed.” Applicants point out that upon reading claim 16, including the punctuation, it is clear that the energy conduits include “conduits disposed within the apparatus between the first side and the second side” or “conduits disposed on the first side.” Hence, for at least the reasons explained above, Applicant respectfully requests the Patent Office withdraw the objection above.

For claim 18 it is unclear how ‘contacts’ relate to energy conduits. Applicants amend claim 18 to require “wherein the energy conduits include contacts on the first side to receive stimuli or to provide a response to stimuli received by the apparatus” and assert that claim 18 as amended is clear. Hence, for at least the reasons explained above, Applicant respectfully requests the Patent Office withdraw the objection above.

For claims 20 and 34 “it is unclear which part of apparatus in which ‘a thickness’ belong to.” Amended claim 20, is clear as explained above for amended claim 8. For claim 34, Applicants point out that upon reading the Application, a practitioner in the arts would find clear “wherein the apparatus further comprises a thickness to allow a retainer of the socket to close over the apparatus.” For example, without limitation thereto, “wherein the apparatus” (see apparatus 110 of Figs. 1-3) “further comprises a thickness” (see thickness T, and depth of stimuli transfer zone 112, as shown in the vertical direction of Fig. 2 of Applicants’ specification) “to allow a retainer of the socket” (retainer 170, as shown in Fig. 2 of Applicants’ specification) “to close over the apparatus” (thickness T, and depth of stimuli transfer zone 112, as shown in the vertical direction of Fig. 2 of Applicants’ specification is small in the vertical direction of Fig. 2 of Applicants’ specification as compared to a depth of an inner dimension of socket cavity 136 of socket 130 to allow a retainer 170 to close over apparatus 110 and socket 130, such as by engaging latch 176 with lock 139 using cantilever 138, as described in paragraph 9 and shown in Figs. 1-2 of Applicants’ specification). Hence, for at least the reasons explained above, Applicant respectfully requests the Patent Office withdraw the objection above.

For claim 21 it is unclear whether 'energy conduits' are different from 'energy conduits' of claim 20. Applicants amend claim 21 to require "wherein the energy conduits are to respond to a plurality of electronic signals received from the contacts" and assert that claim 21 as amended is clear. Hence, for at least the reasons explained above, Applicant respectfully requests the Patent Office withdraw the objection above.

For claims 35-36 it is unclear how 'a thickness' is interrelated with 'thickness' as recited in claims 8 and 20. Applicants amend claims 35-36 to require "the depth allows a retainer of the socket to close over the apparatus" and assert that claims 35-36 as amended are clear as described above for claim 34. Hence, for at least the reasons explained above, Applicant respectfully requests the Patent Office withdraw the objection above.

IV. Claims Rejected Under 35 U.S.C. § 102

The Patent Office rejects claims 1-7 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,436,570 to Tan (Tan). It is axiomatic that for a claim to be anticipated, every limitation of that claim must be disclosed in a single reference.

Applicants respectfully disagree with the rejection above and submit that independent claim 1 is patentable over the cited reference for at least the reason that the cited reference does not teach or suggest a first side including a generally planar surface and one of conductive pads and trace pads surrounding the generally planar surface such that the generally planar surface is accessible to a pick-and-place vacuum force attachments, as required by claim 1.

Tan describes a test probe having a test body 20 and test head 22 comprising printed circuit board wall 2, each having a plurality of stainless steel pins 15 embedded therein to contact socket pins of an IC socket (see Abstract; and col. 2, lines 48 through col. 3, lines 20). On the other end of test body 20, Tan teaches ends of test terminals 4 extending well above testing end 5 for accommodating cable connection headers 10 which attach to the (see Figures 1 and 3; and col. 3, lines 40-52). Specifically, Tan

teaches testing end 5 of probe body 20 comprising a plurality of slots 23 for accommodating cable connection headers 10 (see col. 3, lines 40-52). Thus, each of headers 10 is attached to 18 of test terminals 4 (see col. 3, line 50 and Figures 1 and 3).

Consequently, the Patent Office has not identified and Applicants are unable to find any teaching or suggestion of a generally planar surface and one of conductive pads and trace pads surrounding the generally planar surface as required by claim 1. Instead, Tan teaches 18 test terminals 4 extending, which are clearly not conductive pads or trace pads, but instead extend a distance above end 5 that is many times greater than the width of a terminal, so as to be attached to by header 10 (see col. 3, line 50 and Figures 1 and 3).

Moreover, a practitioner in the art would not be motivated to consider conductive pads and trace pads surrounding a generally planar surface such that the generally planar surface is accessible to a pick-and-place vacuum force attachment, upon consideration of the above described structure of Tan by that practitioner. For instance, according to Tan, first, a test probe is coupled electrically to test equipment; second, an IC device is removed from an IC socket; and then, the test probe takes the place of the IC device in the socket (see col. 1, lines 15-26). Thus, Tan teaches header 10 as the attachment to body 20 (see Tan Fig. 3), but does not teach a planar surface surrounded by conductive pads or trace pads such that the planar surface is accessible, as required by claim 1. Hence, for at least the reasons above, Applicants respectfully request the Patent Office withdraw the rejection above.

Applicants submit that dependent claims 2-7, being dependent upon allowable base claim 1, are patentable over the cited references for at least the reasons cited above. Thus, Applicants respectfully request the Patent Office withdraw the rejection of dependent claims 2-7.

The Patent Office rejects claims 8, 11-15, 17, 20, and 22-24 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,436,570 to Tan (Tan).

Applicants address that “Examiner reads the test device portion as a second side and the second side as a test device portion”. This is inaccurate, as noted above. Specifically, as noted above with respect to the objection of claim 8, for example, without limitation thereto, in amended claim 8 “a second side” may be shown by the bottom or second side 118 of apparatus 110, which may include socket contacts 112-114 within test device portion 152 of apparatus 110 as shown in Figs. 2-3 of Applicants’ specification.

Next, Applicants respectfully disagree with the rejection above and submit that independent claims 8 and 20 are patentable over the cited reference for at least the reason that the cited reference does not teach or suggest an “apparatus having size that is smaller or equal in depth as compared to a depth of an inner dimension of the cavity”, as required by claims 8 and 20.

Tan describes a test probe having a test body 20 and test head 22 comprising printed circuit board wall 2, each having a plurality of stainless steel pins 15 embedded therein to contact socket pins of an IC socket (see Abstract; and col. 2, lines 48 through col. 3, lines 20). However, Tan teaches and clearly shows in Figure 4 that head 22 is much greater in depth than the cavity of socket 21 (e.g., in the vertical direction).

Consequently, the Patent Office has not identified and Applicants are unable to find any teaching or suggestion of the above noted limitations of claims 8 and 20. Hence, for at least the reasons above, Applicants respectfully request the Patent Office withdraw the rejection above.

Applicants submit that dependent claims 11-15, 17, and 22-24 being dependent upon allowable base claim 1, are patentable over the cited references for at least the reasons cited above. Thus, Applicants respectfully request the Patent Office withdraw the rejection of dependent claims 11-15, 17, and 22-24.

CONCLUSION

In view of the foregoing, it is believed that all claims now pending patentably define the subject invention over the prior art of record and are in condition for allowance, and such action is earnestly solicited at the earliest possible date.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2666 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17. If a telephone interview would expedite the prosecution of this Application, the Examiner is invited to contact the undersigned at (310) 207-3800.

Respectfully submitted,

BLAKELY, SOKOLOFF, TAYLOR, & ZAFMAN LLP

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By: _____

Angelo J. Gaz, Reg. No. 45,907

12400 Wilshire Boulevard
Seventh Floor
Los Angeles, California 90025
(310) 207-3800

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Amber D Saunders 2/28/06
Amber D. Saunders Date